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10/566,330

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EXAMINER

LAM, VINH TANG

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,330	Applicant(s) KNOTT ET AL.	
	Examiner VINH LAM	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims **16**, **18**, and **20** are rejected under 35 U.S.C. 102(e) as being anticipated by **Zerhusen et al. (US Patent No. 2003/0052787)**.

Regarding Claims **16** and **18**, (New) **Zerhusen et al.** teach (a display and control apparatus for (Claim 16)) medical (equipment (Claim 16)) (system (Claim 18)) ([**0073**]-[**0078**],[**0085**], *FIGs. 1 & 4-7*), comprising:

medical equipment including a plurality of operational units ([**0073**]-[**0078**],[**0085**], *FIGs. 1 & 4-7*); and (Claim 18)

a display and control apparatus ([**0073**], *FIG. 1, i.e. 24 and 12*) comprising (Claim 18):

a plurality of configurable display/control units ([**0109**], *FIGs. 40-41*), each display/control unit including a display device ([**0109**], *FIGs. 40-41, i.e. 604 and/or 606*), a display activation ([**0075**], *FIG. 1, i.e. computer 12*) device which activates the display

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device on the basis of data supplied from the medical equipment ([0075], FIG. 1), an input device ([0075], FIG. 1, i.e. touch screen) disposed on a surface of the display device ([0075], FIG. 1), an input evaluation device ([0075], FIG. 1, i.e. keyboard emulation 26 or other interface) which evaluates inputs made via the input device ([0075], FIG. 1), and a connector ([0078], FIG. 1, i.e. connector at 24 to interface 25) configured to removably connect each display/control unit to the medical equipment through a communication bus ([0078], FIG. 1, i.e. interface 25);

a base unit ([0073]-[0078],[0085], FIGs. 1 & 4-7, i.e. computer 12) on which the plurality of display/control units are mounted ([0073]-[0078],[0085], FIGs. 4-7), the base unit including a communication bus ([0078], FIG. 1, i.e. interface 25) for communication between the plurality of display/control units ([0109], FIGs. 40-41, i.e. 604 and 606) and the medical equipment ([0073]-[0078],[0085], FIGs. 1 & 4-7), a plurality of connectors ([0078], FIG. 1, i.e. inherently because each connector at 24 would have video/power inputs from interface 25) for connection to respective display/control units; and

a configuration device ([0075], FIG. 1, i.e. computer 12) connected to the communication bus ([0078], FIG. 1, i.e. LVDS interface 25) and which transmits configuration data ([0075], FIG. 1, i.e. "medication administration, ... , and nurse call functions") to a display/control unit after connection of the display/control unit to the communication bus, wherein the configuration data establishes display contents and input areas ([0110], FIGs. 42-63) of the display/control unit to be utilized during subsequent operation with the medical equipment ([0110]-[0126], FIGs. 42-63) and wherein, after receiving the configuration data from the configuration device, the

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display/control unit operates independently of the configuration device and communicates directly with the medical equipment ([0073], FIG. 1; [0113], FIG. 44, i.e. bed control).

Regarding Claim 20, (New) **Zerhusen et al.** teach a medical system as defined in claim 18, wherein the medical equipment comprises a life support system ([0077], FIG. 1, i.e. medication 42).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Willmore (US PGPub. No. 2003/0179156)** in view of **Zerhusen et al. (US Patent No. 2003/0052787)** and further in view of **Honkonen et al. (US Patent No. 6681764)**.

Regarding Claim 1, (Currently amended) **Willmore** teaches a display and control device for medical equipment (*Title of Invention, i.e. ... for displaying **goods and services***), including units connectable to an electric bus, the display and control device ([0043], FIG. 1, i.e. 11) comprising:

■ plurality of display/control units ([0043], FIG. 1, i.e. 14 & 31), each display/control unit including:

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- a display device ([0043], FIG. 1, i.e. 14) having a plurality of activatable pixels ([0043], FIG. 1, i.e. **liquid crystal, LED, or Electro-luminescent**),
- a display activation device which activates the pixels of the display device on the basis of data supplied ([0054], FIG. 5, i.e. *inherently comprised of vertical and horizontal drivers inside **liquid crystal, LED, or Electro-luminescent***)
- a transparent input device disposed on a surface of the display device that is to face an observer ([0044], [0053], FIGs. 1 & 5, i.e. 31),
- an input evaluation device which evaluates inputs made via the input device ([0044], i.e. 17 or 18 **may in one embodiment be arranged as a touch screen**; [0053], FIG. 5, i.e. *processors 18 serve to distribute data between a central server, such as the computer 26 and the individual display screens 14*), and
- a unit connector ([0040], FIG. 6, i.e. **rack mount**) with which the display activation device and the input evaluation device are connected and by which the display/control unit can be connected to an electric bus ([0053], [0054], FIGs. 5 & 6, i.e. 41), and
 - a base unit ([0045], FIG. 2, i.e. **video wall 18**) on which the plurality of display/control units are arranged, the base unit including:
 - an electric bus for the communication of the display/control units connected thereto ([0053], [0054], FIGs. 5 & 6, i.e. 41),
 - a plurality of connector devices ([0040], FIG. 5, i.e. **processors 18**) at which [[the]] respective display/control [[unit]] units can be connected to the electric bus via the unit connector ([0053], [0054], FIGs. 5 & 6, i.e. 41).

However, **Willmore** does not teach a configuration device connecting to the electric bus and transmitting display contents and input areas of the display/control unit.

In the same field of endeavor, **Zerhusen et al.** teach

- a configuration device ([0075], FIG. 1, i.e. computer 12) which is connected with the electric bus ([0078], FIG. 1, i.e. LVDS interface 25) and which, after connection of [[the]] a display/control unit to the electric bus, transmits to the display/control unit configuration data ([0075], FIG. 1, i.e. "medication administration, ... , and nurse call functions") determining display contents and input areas of the display/control unit ([0110], FIGs. 42-63) to be utilized during subsequent operation with the medical equipment ([0110]-[0126], FIGs. 42-63).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine **Willmore** teaching of display and control device for medical equipment, comprising units connectable to an electric bus, display, and control device with **Zerhusen et al.** teaching of a configuration device connecting to the bus and transmitting display contents and input areas of the display/control unit *to provide accurate patient medical profiles and to enhance interface between medical devices and caregivers/patients.*

However, **Willmore** and **Zerhusen et al.** do not teach wherein the configuration data further comprises an identification of a medical unit connectable to the electric bus from which data values are to be received, a criteria for evaluating the received data values and a format for displaying a result of the evaluation of the received data values.

In the same field of endeavor, **Honkonen et al.** teach the configuration data further comprises an identification of a medical unit (*i.e. **parameters** or information from input sensors, output valves, modes of operations, and the indicator interfacing with the controller*; Col. 6, Ln. 22-52, FIGs. 1, 6, & 8-11), connectable to the electric bus from which data values are to be received, a criteria for evaluating the received data values (Col. 10, Ln. 25-32, FIG. 6; Col. 10, Ln. 57-58, FIG. 8; Col. 11, Ln. 1-5, FIG. 9; Col. 11, Ln. 11-13, FIG. 10; and Col. 11, Ln. 25-27, FIG. 11) and a format for displaying a result of the evaluation of the received data values (Col. 10, Ln. 25-42, FIG. 6).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine **Willmore** and **Zerhusen et al.** teaching of display and control device for medical equipment, comprising units connectable to an electric bus, display, control device, and a configuration device for use with medical equipment with **Honkonen et al.** teaching of the configuration data further comprises an identification of a medical unit, other data, and format *to improve faster, easier, and enhancing interface between medical devices and caregivers/patients*.

Regarding Claim 2, (Previously presented) the display and control device according to claim 1, wherein **Zerhusen et al.** teach for each of the connector devices of the base unit, it is determined in the configuration device which configuration data are transmitted to a display/control unit connected to a respective connector device ([0073]-[0078], FIG. 1).

Regarding Claim 3, (Previously presented) the display and control device according to claim 1, wherein **Zerhusen et al.** teach in the configuration device the

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configuration data transmitted to connected display/control units are determined depending on the sequence in which the display/control units are connected to the base unit ([0110]-[0126], FIGs. 42-63).

Regarding Claim 4, (Previously presented) the display and control device according to claim 1, wherein **Zerhusen et al.** teach several areas to display display contents and to receive inputs are logically defined in the display device of the display/control unit ([0110]-[0126], FIGs. 42-63).

Regarding Claim 5, (Previously presented) the display and control device according to claim 4, wherein **Willmore** teaches several of the logical areas are combinable to form a connected area ([0053], [0054], FIGs. 5 & 6, i.e. 8 processors to 4 processors).

Regarding Claim 6, (Previously presented) the display and control device according to claim 1, wherein **Willmore** teaches the at least one display/control unit includes several display/control devices that are constructed identically ([0110]-[0126], FIGs. 42-63).

Regarding Claim 7, (Previously presented) the display and control device according to claim 1, wherein **Willmore** teaches the display/control unit is fixed to the base unit by way of the connection between the unit connector and the connector device ([0040], FIG. 6, i.e. **rack mount**).

Regarding Claim 8, (Previously presented) the display and control device according to claim 7, wherein **Willmore** teaches the display/control unit is fixed on the base unit via additional fixing elements ([0045], FIG. 2, i.e. **video wall 18**).

Regarding Claim **9**, (Previously presented) the display and control device according to claim 1, wherein **Willmore** teaches data for displaying digits, numbers and map pixels are stored in the display activation device of the display/control unit ([**0054**], *FIG. 5*, [**0055**], *FIG. 7*, i.e. obviously pixels information latched into horizontal and vertical drivers).

Regarding Claim **10**, (Previously presented) the display and control device according to claim 1, wherein **Zerhusen et al.** teach the display/control unit and the configuration device are arranged such that data for display contents can be transmitted to the display/control unit by the configuration device and stored in the display/control unit ([**0110**]-[**0126**], *FIGs. 42-63*).

Regarding Claim **11**, (Previously presented) the display and control device according to claim 10, wherein **Zerhusen et al.** teach the display/control unit informs the configuration device of which data for display contents are stored in the display activation device ([**0110**]-[**0126**], *FIGs. 42-63*).

Regarding Claim **12**, (Previously presented) the display and control device according to claim 1, wherein **Willmore** teaches the display/control unit includes a bus communication device via which the display activation device and the input evaluation device are connected to the bus ([**0053**], [**0054**], *FIGs. 5 & 6*, i.e. **41**).

Regarding Claim **13**, (Previously presented) the display and control device according to claim 1, wherein no further control elements are provided which is an obvious *Choice of Design* having all features for all functions needed to reduce cost and design complexity.

Regarding Claim **14**, (Previously presented) the display and control device according to claim 1, wherein apart from an on/off switch which is obviously provided in display and control device to preserve the power when not needed, no further control elements are provided which is an obvious *Choice of Design* having all features for all functions needed to reduce cost and design complexity.

Regarding Claim **15**, (Previously presented) a display/control unit adapted for use in a display and control device according to claim 1 is taught by **Willmore**, **Zerhusen et al.**, and **Honkonen et al.** as shown above.

3. Claims **17** and **19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Zerhusen et al. (US Patent No. 2003/0052787)** in view of **Honkonen et al. (US Patent No. 6681764)**.

Regarding Claims **17** and **19**, (New) **Zerhusen et al.** a display and control apparatus and a medical system as defined in claims 16 and 18 respectively.

However, **Zerhusen et al.** do not teach wherein the configuration data comprises an identification (of an operational unit (Claim 19)) of a medical unit connectable to the communication bus from which data values are to be received, a criteria for evaluating the received data values and a format for displaying a result of the evaluation of the received data values.

In the same field of endeavor, **Honkonen et al.** teach the configuration data further comprises an identification of a medical unit (*i.e. parameters or information from input sensors, output valves, modes of operations, and the indicator interfacing with the*

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controller; Col. 6, Ln. 22-52, FIGs. 1, 6, & 8-11), connectable to the electric bus from which data values are to be received, a criteria for evaluating the received data values (Col. 10, Ln. 25-32, FIG. 6; Col. 10, Ln. 57-58, FIG. 8; Col. 11, Ln. 1-5, FIG. 9; Col. 11, Ln. 11-13, FIG. 10; and Col. 11, Ln. 25-27, FIG. 11) and a format for displaying a result of the evaluation of the received data values (Col. 10, Ln. 25-42, FIG. 6).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine **Zerhusen et al.** teaching of a display and control apparatus, comprising units connectable to an electric bus, display, control device, and a configuration device for use with medical equipment with **Honkonen et al.** teaching of the configuration data further comprises an identification of a medical unit, other data, and format *to improve faster, easier, and enhancing interface between medical devices and caregivers/patients.*

Response to Arguments/Amendments/Remarks

4. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicants argues that *"there is no reason whatever to connect the video wall of Willmore to the home ambulatory liquid oxygen system of Honkonen"* and *"there would be no reasonable expectation of success in combining the video wall of Willmore and the home ambulatory liquid oxygen system of Honkonen"* (P.9). However, the Examiner respectfully disagrees because it would have been obvious to a person having ordinary

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skill in the art at the time the invention was made to combine parts of each teaching *Willmore/ Honkonen* to yield the predictable results, which are the multi-display/control units having interface with the computer for use in medical equipment/system, as claimed. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

Conclusion

The prior art(s) made of record and not relied upon (is)/are considered pertinent to applicant's disclosure: Suga; Ryoichi et al. (US Patent No. 4800376).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH T. LAM whose telephone number is (571)270-3704. The examiner can normally be reached on M-F (7:00-4:30) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on (571) 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vinh T Lam/
Examiner, Art Unit 2629

/Amare Mengistu/
Supervisory Patent Examiner, Art Unit 2629